



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

|   |             |                      |                     |                  |
|---|-------------|----------------------|---------------------|------------------|
| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 09/695,613  | 10/24/2000  | Junichi Moriyama     | FUJS 17.902         | 2966             |
| 7590  | 12/19/2003  |                      | EXAMINER            |                  |
| Katten, Muchin, Zavis & Rosenman<br>575 Madison Ave.<br>New York, NY 10022-2585 |             |                      | SINGH, DALZIDE      |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2633                |                  |
| DATE MAILED: 12/19/2003   |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 09/695,613             | MORIYAMA ET AL.     |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | Dalzid Singh           | 2633                |

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 24 October 2000.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-16 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 2,4,6-8,10,13,14 and 16 is/are allowed.
- 6) Claim(s) 1,3,5,9,12 and 15 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 24 October 2000 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
  - a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> . | 6) <input type="checkbox"/> Other: _____                                     |

## DETAILED ACTION

### ***Election/Restrictions***

1. Applicant's election of restriction requirement in Paper No. 6 is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Specification***

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Optical Ring Transmission System Using Squelch Method.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3, 5, 9, 12 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Taniguchi (US Patent No. 6,122,250).

The applied reference has a common inventor with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1 and 12, Taniguchi discloses an optical transmitting apparatus for a ring transmission system used in a ring transmission system in which a plurality of optical transmitting apparatuses are connected to one another over a bidirectional ring transmission path, as shown in Fig. 1A and cited in col. 3, lines 59-64, comprising:

a data link reading means for reading said crossconnect information and topology information uniquely representing the order of arrangement of optical transmitting apparatuses connected in ring (as cited in col. 4, lines 67 to col. 5, lines 1-21, Taniguchi teaches that data signal, which is transmitted between nodes, consists of header; the header is transmitted from one node to the other; it is inherent that each node contain data reading means to read information contained in the header);

a topology creating means for creating a topology using said topology information read by said data link reading means (in col. 9, lines 7-27, Taniguchi teaches building of ring topology);

a data link writing means for writing a unique absolute node identifier given to each of said plural optical transmitting apparatuses and a relative node identifier given by relating absolute node identifiers of other nodes with said topology in said

crossconnect information of said data link channel on the basis of said topology created by said topology creating means (in col. 9, lines 7-27, Taniguchi teaches assigning of ID numbers to the nodes, wherein each node contained transmitting apparatus); and

a squelch table creating means for creating squelch table holding said crossconnect information written in said data link channel (in col. 9, lines 43-58, Taniguchi teaches forming of squelch table, wherein each node has squelch table, where it stores ID of the nodes; data link channel is any communication channel used within the ring network).

Regarding claim 3, Taniguchi teaches that the nodes sets an absolute node identifier of its own node to said add node identifier of said data link channel when its own node is said add node, and sets said drop node identifier of said data link channel to a relative node identifier of its own node corresponding to said add node identifier when its own node is said drop node (as cited in col. 5, lines 22-39 and col. 9, lines 7-27, Taniguchi teaches that each node stores ID of the transmission and reception nodes, and a link channel, for example ch. 1, is used to communicated between the nodes).

Regarding claim 5, Taniguchi teaches that wherein data other than zero is used as said relative node identifier set by said data link writing means, and said node recognizing means recognizes presence or absence of zero data in a region in which said drop node identifier of said data link channel is written to determine whether or not setting of said 9 crossconnect information is completed (as cited in col. 9, lines 7-27, Taniguchi teaches that each node is assigned ID number other than zero).

Art Unit: 2633

Regarding claim 9, as cited in col. 6, lines 55-60, Taniguchi teaches that wherein the squelch table creating means is such configured as to create the same squelch table among optical transmitting apparatuses (nodes) of said ring transmission system.

Regarding claim 15, Taniguchi teaches ring transmission system, wherein at said data link writing step, data other than zero is used as said relative node identifier (as cited in col. 9, lines 7-27, Taniguchi teaches that each node is assigned ID number other than zero).

***Allowable Subject Matter***

5. Claims 2, 4, 6-8, 10, 11 13, 14 and 16 are allowed.
6. The following is a statement of reasons for the indication of allowable subject matter:

The instant application is directed to a nonobvious improvement over the invention described in patent number 6,122,250 to Taniguchi. The improvement comprises:

an RIP table creating means for creating an RIP table holding a primary node identifier indicating a primary node which transmits said optical signal from said first ring transmission path to said second ring transmission path, a secondary node identifier indicating a secondary node adjacent to said primary node to transmit /receive said optical signal, and said drop node identifier for each of a working line and a protection line on the basis of said crossconnect information; and

a node recognizing means being able to recognize from said relative node identifier of said crossconnect information read by said data link reading means which its own node is said primary node or said secondary node.

This patentable distinction is included in independent claim 2.

The instant application is directed to a nonobvious improvement over the invention described in patent number 6,122,250 to Taniguchi. The improvement comprises:

a first add/drop node for receiving an optical signal transmitted from an external node over a working line and transmitting said optical signal to another node of said first ring transmission system over said working line, while receiving an optical signal transmitted from another node of said first ring transmission system over said working line;

a first primary node for receiving said optical signal transmitted from said first add/drop node over said working line and transmitting said optical signal to an external ring transmission system and another node of said first ring transmission system over said working line, while receiving an optical signal transmitted from said external ring transmission system over said working line and an optical signal transmitted from another node of said first ring transmission system over a protection line, selecting either one of said received optical signals, and transmitting said selected optical signal to another node of said first ring transmission system over said working line;

a first secondary node for receiving said optical signal transmitted from said first primary node over said protection line and transmitting said optical signal to said

external ring transmission system over said protection line, while receiving said optical signal transmitted from said external ring transmission system over said protection line and transmitting said optical signal to said first primary node over said protection line; said second ring transmission system comprises:

a second secondary node for receiving said optical signal transmitted from said first secondary node of said first ring transmission system over said protection line and transmitting said optical signal to said second ring transmission system over said protection line;

a second primary node for receiving an optical signal transmitted from said first primary node of said first ring transmission system over said working line and said optical signal transmitted from said second secondary node over said protection line and transmitting said optical signal to another node of said second ring transmission system over said working line, while receiving an optical signal transmitted from another node of said second ring transmission system over said working line, transmitting said optical signal to said first primary node of said first ring transmission system, and transmitting said optical signal to said second secondary node;

a second add/drop node for receiving an optical signal transmitted from an external ring transmission system over said working line and transmitting said optical signal to another node of said second ring transmission system over said working line, while receiving said optical signal transmitted from another node of said second ring transmission system over said working line and transmitting said optical signal to said external ring transmission system over said working line;

said optical transmitting method performed in each of said nodes comprising the steps of: a data link reading step of reading said crossconnect information of said data link channel and topology information uniquely representing the order of arrangement of optical transmitting apparatuses connected in ring;

a topology creating step of creating a topology using said topology information read at said data link reading step;

a data link writing step of writing a unique absolute node identifier given to each of a plurality of nodes and a relative node identifier given by relating absolute node identifiers of other nodes with said topology in said crossconnect information of said data link channel on the basis of said topology created at said topology crating step;

a squelch table creating step of creating a squelch table holding said crossconnect information written in said data link channel;

an RIP table creating step of creating an RIP table holding a primary node identifier indicating a primary node transmitting said optical signal from said first ring transmission path to said second ring transmission path, a secondary node identifier indicating a secondary node adjacent to said primary node to transmit receive said optical signal, and said drop node identifier for each of said working line and said protection line on the basis of said crossconnect information; and

a node recognizing step of recognizing from said relative node identifier of said crossconnect information read at said data link reading step which its own node is said primary node or said secondary node.

This patentable distinction is included in independent claim 13.

The instant application is directed to a nonobvious improvement over the invention described in patent number 6,122,250 to Taniguchi. The improvement comprises:

a first add/stop node for receiving an optical signal transmitted from an external node over a working line, transmitting said optical signal to said first ring transmission system over said working line, and transmitting said optical signal to said first ring transmission system over a protection line, while receiving an optical signal transmitted from another node of said first ring transmission system over said working line, receiving an optical signal transmitted from another node of said first ring transmission system over said protection line, and transmitting said optical signal to an external ring transmission system over said working line;

a first primary node for receiving said optical signal transmitted from said first add/drop node over said working line, and transmitting said optical signal to an eternal ring transmission system and another node of said first ring transmission system over said working line, while receiving an optical signal transmitted from said external ring transmission system over said working line and an optical signal transmitted from another node of said first ring transmission system over said protection line, selecting either one of said received optical signals, and transmitting said selected optical signal to another node of said first ring transmission system over said working line;

a first secondary node for receiving an optical signal transmitted from said first add/drop node over said protection line, and transmitting said optical signal to a node of said external ring transmission system over said protection line, while receiving an

optical signal transmitted from a node of said external ring transmission system over said protection line, and transmitting said optical signal to said first add/drop node over said protection line;

said second ring transmission, system comprises:

a second primary node for receiving said optical signal transmitted from said first primary node of said first ring transmission system over said working line, and transmitting said optical signal to another node of said second ring transmission system over said working line, while receiving an optical signal transmitted from another node of said second ring transmission system over said working line, and transmitting said optical signal to said first primary node of said first ring transmission system over said working line;

a second secondary node for receiving an optical signal transmitted from said first secondary node of said first ring transmission system over said protection line, and transmitting said optical signal to another node of said second ring transmission ring over said protection line, while receiving said optical signal transmitted from another node of said second ring transmission system over said protection line, and transmitting said optical signal to said first secondary node of said first ring transmission system over said protection line;

a second add/drop node for receiving said optical signal transmitted from and second primary node over said protection line, receiving said optical signal transmitted from another node of said second ring transmission system over said working line, and transmitting said optical signal to an external ring transmission system over said

working line, while receiving an optical signal transmitted from said external ring transmission system over said working line, transmitting said optical signal to another node of said second ring transmission system over said working line, and transmitting said optical signal to another node of said second ring transmission system over said protection line;

    said optical transmitting method performed in each of said nodes comprising the steps of:

        a data link reading step of reading said crossconnect information of said data link channel and topology information uniquely representing the order of arrangement of optical transmitting apparatuses connected in ring;

        a topology creating step of creating a topology using said topology information read at said data link reading step;

        a data link writing step of writing a unique absolute node identifier given to each of a plurality of nodes and a relative node identifier given by relating absolute node identifiers of other nodes with said topology in said crossconnect information of said data link channel on the basis of said topology created at said topology creating step;

        a squelch table creating step of creating a squelch table holding said crossconnect information written in said data link channel;

        an RIP table creating step of creating an RIP table holding a primary node identifier indicating a primary node transmitting said optical signal from said first ring transmission path to said second ring transmission path, a secondary node identifier indicating a secondary node adjacent to said primary node to transmit /receive said

optical signal, and said drop node identifier for each of said working line and said protection line on the basis of said crossconnect information; and

a node recognizing step of recognizing from said relative node identifier of said crossconnect information read at said data link reading step which its own node is said primary node or said secondary node.

This patentable distinction is included in independent claim 14.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kremer (US Patent No. 5,394,389) is cited to show bidirectional line-switched ring transmission system.

Shioda et al (US Patent No. 5,537,393) is cited to show BLSR network having path-AIS generation function.

Usuba et al (US Patent No. 6,614,754) is cited to show bi-directional line switched ring network system.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalzid Singh whose telephone number is (703) 306-5619. The examiner can normally be reached on Mon-Fri 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

DS  
December 11, 2003



LESLIE PASCAL  
PRIMARY EXAMINER